

REMARKS

This responds to the Office Action mailed on January 3, 2007. Reconsideration is respectfully requested.

Claims 1 – 3, 8, 10, 12 – 14, 19, 20, 27 and 29 are amended. Claims 1 – 30 remain pending in this application.

Claims Objection

Claims 27-30 were objected to due to informalities. According to the Examiner the phrase “associated a single network identifier” should be “associated with a single network identifier.” Applicants are unable to find this incorrect phrase and believe these claims are correct as written.

Allowable Subject Matter

Claims 22-26 were allowed.

Claims 2, 5, 6, 10, 11, 13-18, 20 and 21 were objected to as being dependent upon a rejected base claim, but were indicated to be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Claim 2 has been rewritten in independent form including all of the limitations of the base claim 1. Claims 5 and 6 are believed to be allowable at least because of their dependency on claim 2.

Claim 10 has been rewritten in independent form including all of the limitations of the base claim 1 and any intervening claims 7 and 9. Applicant's point out the wording in claim 10 has been changed to clarify the distinction between active and passive scanning. Claim 11 is believed to be allowable at least because of its dependency on claim 10.

Claim 8 has been amended to depend from claim 10 and is therefore believed to be allowable.

Claim 13 was indicated to be allowable if rewritten to overcome the rejection(s) under 35 U.S.C. § 112, second paragraph, set forth in the Office Action and to include all of the limitations of the base claim and any intervening claims. Claim 13 has been rewritten in

independent form including all of the limitations of the base claim 12, and to clarify the antecedent basis issue noted by the Examiner.

Claim 14 has been rewritten in independent form including all of the limitations of the base claim 12. Claims 15 – 18 are believed to be allowable at least because of their dependency on claim 14.

Claim 20 has been rewritten in independent form including all of the limitations of the base claim 19. Claim 21 is believed to be allowable at least because of its dependency on claim 20.

§112 Rejection of the Claims

Claims 3 and 13 were rejected under 35 U.S.C. § 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Claims 3 and 13 have been amended to correct the antecedent basis issues noted by the Examiner. Applicants thank the Examiner for pointing out these issues.

§103 Rejection of the Claims

Claim 1 was rejected under 35 U.S.C. § 103(a) as being unpatentable over Henrion (U.S. 6,807,177) in view of Diener et al. (U.S. 2004/0137915).

Applicants' claim 1, as amended, is directed to a method for reducing scan time by a mobile communication unit. The method recites maintaining a single mapping within the mobile communication unit for one or more active channels associated with a single network identifier, and tuning to one of the active channels using the single mapping to allow the mobile communication unit to either associate or reassociate with a wireless network having the associated network identifier.

According to the Examiner, Henrion discloses a single mapping for one or more active channels associated with a single network identifier. Henrion discloses channel data blocks that include channel data and a channel identifier (among other things) (see Henrion column 3, lines 32 – 37). Henrion's channel identifiers designate an address of a synchronous communication channel in either the input port module or output port module (see Henrion column 2 lines 45 – 49). The use of these channel identifiers eliminates the need to reconfigure each channel and the need to rearrange channels (see Henrion column 2 lines 50 – 53). In Applicants' claim 1, on the

other hand, the single mapping may be associated with *more than one* channel and with a *single* network identifier. The network identifier in Applicants' claim 1 (e. g., an SSID) identifies a wireless network. One wireless network may use more than one channel.

Diener is cited for "maintaining", however Diener only discloses maintaining "a list of authorized APs and STAs" (see Diener paragraph 0086, lines 11 - 12). Diener maintains the list of authorized APs and STAs so that the discovery manager 3120 in the server can determine when a newly detected device is authorized (see Diener paragraph 0086, lines 13 – 18).

Applicants' claim 1, on the other hand, recites maintaining a single mapping within the mobile communication unit for one or more active channels associated with a single network identifier. Applicants' single mapping to one or more active channels with a single network identifier is not a list of authorized APs or STAs. An example of this is illustrated in Applicants' FIG. 3 which shows that for one or more channels (middle column) with a single network identifier (e.g., the same SSID), a single mapping (e.g., one bitmap) is maintained. Note that a single mapping may be maintained for several different network identifiers (SSIDS).

Furthermore, Applicant's single mapping is maintained within a mobile communication device. Diener's list is maintained in a server.

Applicants' single mapping is used to quickly tune to a channel for associating and re-associating with a wireless network. Applicants' single mapping may also be used to re-scan channels identified by the mapping. None of this is taught, suggested, or motivated by any of the cited references, either separately or in combination.

Claim 3 was also rejected under 35 U.S.C. § 103(a) as being unpatentable over Henrion in view of Diener et al., and further in view of Davis et al. (U.S. 2004/0224631). Davis has been cited by the Examiner for disclosing the scanning of active channels. However, Davis "scans all channels for active units" (see Davis paragraph 0036). Applicant's claim 3 recites that active channels are scanned to determine network identifiers. Davis is not scanning for network identifiers, but is scanning all channels (including inactive channels) to identify active channels so that attempts to use a channel may be performed without scanning (see Davis paragraph 36).

Applicants' claim 3 further distinguishes over the cited reference by reciting that when the mobile unit associates or re-associates with the wireless network, the method comprises scanning the one or more active channels identified in the bitmap table and refraining from

scanning for channels not identified in the bitmap table to reduce scan time. Scan time reduction during association or reassociation is not taught, suggested, or motivated by any of the cited references. Claims 12, 19, and 27 have similar limitations.

Claim 4 was also rejected under 35 U.S.C. § 103(a) as being unpatentable over Henrion in view of Diener et al., further in view of Luneau (U.S. 2004/0242149) and further in view of Williams et al. (U.S. 5,524,278). Luneau is cited by the Examiner for scanning channels to determine active channels, however Luneau states that the base station is configured to communication with a mobile station on a channel that is not active (see Luneau paragraph 0017, last sentence). This teaches away from applicant's claim 4 which recites, in base claim 1, that one of the active channels is used based on the scanning. Accordingly, Luneau cannot be combined with any reference to result in Applicants' claimed invention.

Williams has been cited for disclosing predetermined channels for a geographic location. Applicant's submit that William's channels are simply a particular set of channels used a central communication site. There is no teaching in Williams that these channels are *predetermined* for a geographic location.

Claim 7 was also rejected under 35 U.S.C. § 103(a) as being unpatentable over Henrion in view of Diener et al., and further in view of Laux et al. (U.S. 2004/0090929). Laux has been cited for detection of a beacon during a passive scan. Applicants submit that the elements of claims 1 and 7 is not taught, suggested, or motivated by the combination of cited references as discussed above.

Claim 8 was also rejected under 35 U.S.C. § 103(a) as being unpatentable over Henrion in view of Diener et al., and further in view of Sinnivaara et al. (U.S. 7,020,439). Sinnivaara has been cited by the Examiner for scanning channels using information in probe response frames. Claim 8 is dependent on claim 10, and is therefore believed to be allowable.

Claim 9 was also rejected under 35 U.S.C. § 103(a) as being unpatentable over Henrion in view of Diener et al., further in view of Laux et al. and further in view of Sinnivaara et al. Although Laux and Sinnivaara disclose the use of beacon and/or probe frames during scanning, Applicants' submit that the elements of claims 1 and 9 is not taught, suggested, or motivated by the combination of cited references as discussed above.

Claim 12 was also rejected under 35 U.S.C. § 103(a) as being unpatentable over Henrion in view of Diener et al., further in view of Hoogerwerf et al. (U.S. 5,819,171). Claim 19 was also rejected under 35 U.S.C. § 103(a) as being unpatentable over Diener et al. in view of Hoogerwerf et al. Claim 27 was also rejected under 35 U.S.C. § 103(a) as being unpatentable over Hoogerwerf et al. in view of Koorapaty et al. (U.S. 2002/0082010).

Claims 12, 19 and 27 have limitations similar to claim 1 and the discussions above with respect to Henrion in view of Diener make it clear that the combination of Henrion and Diener do not result in Applicant's claims 12, 19, or 27. Hoogerwerf has been cited for disclosing network interface circuitry, however the network interface circuitry is not configured to maintain a single mapping for one or more active channels associated with a single network identifier, as recited in Applicants' claim 12.

Regarding claim 27, Hoogerwerf has been cited for disclosing an operating system that maintains a call map data base. Hoogerwerf assigns mobile calls to voice channels using a call map database. Applicants submit that this is unlike applicant's single bitmap which is a single mapping for one or more active channels associated with a single network identifier. In other words, a signal wireless network (i.e., same network ID) may use more than one active channel, and Applicant's single bitmap may be used for all channels with that network ID.

Regarding claim 27, Koorapaty has been cited for disclosing that broadcast channels are confined to a small portion of the spectrum to reduce scan time. Applicants' claim 27, however recites that the transceiver circuitry scans the one or more active channels identified in the bitmap table, and refrains from scanning channels not identified in the bitmap table to reduce scan time. In Applicants' claims, it does not matter whether or not the channels are confined to a small portion of the spectrum because the bitmap table identifies active channel so that the transceiver does not have to waste time scanning other channels.

Claims 28 and 29 were also rejected under 35 U.S.C. § 103(a) as being unpatentable over Henrion in view of Koorapaty et al., and further in view of Luneau. Claim 30 was also rejected under 35 U.S.C. § 103(a) as being unpatentable over Henrion in view of Koorapaty et al. and Luneau, and further in view of Zhang (U.S. 2006/0264201). Please refer to the discussions above with respect to Henrion, Koorapaty, and Luneau. Applicants submit that the elements of claims

27, 28, and 29 is not taught, suggested, or motivated by the combination of cited references as discussed above.

In view of the above, Applicants submit that the rejection of claims 1, 3, 4, 7 – 9, 12, 19 and 27 – 30 has been overcome.

CONCLUSION

Applicant respectfully submits that the claims are in condition for allowance, and notification to that effect is earnestly requested. The Examiner is invited to telephone Applicant's attorney at (480) 659-3314 to facilitate prosecution of this application.

If necessary, please charge any additional fees or credit overpayment to Deposit Account No. 19-0743.

Reservation of Rights

In the interest of clarity and brevity, Applicant may not have addressed every assertion made in the Office Action. Applicant's silence regarding any such assertion does not constitute any admission or acquiescence. Applicant reserves all rights not exercised in connection with this response, such as the right to challenge or rebut any tacit or explicit characterization of any reference or of any of the present claims, the right to challenge or rebut any asserted factual or legal basis of any of the rejections, the right to swear behind any cited reference such as provided under 37 C.F.R. § 1.131 or otherwise, or the right to assert co-ownership of any cited reference. Applicant does not admit that any of the cited references or any other references of record are relevant to the present claims, or that they constitute prior art. To the extent that any rejection or assertion is based upon the Examiner's personal knowledge, rather than any objective evidence of record as manifested by a cited prior art reference, Applicant timely objects to such reliance on Official Notice, and reserves all rights to request that the Examiner provide a reference or affidavit in support of such assertion, as required by MPEP § 2144.03. Applicant reserves all rights to pursue any cancelled claims in a subsequent patent application claiming the benefit of

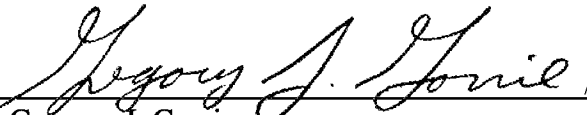
priority of the present patent application, and to request rejoinder of any withdrawn claim, as required by MPEP § 821.04.

Respectfully submitted,

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